AN ARCHAEOLOGICAL SURVEY OF PROPOSED ADDITIONAL CHANGES AND DEEP WELL LOCATIONS FOR THE WESTERN CASS WATER SUPPLY CORPORATION IN SOUTH-CENTRAL CASS COUNTY,TEXAS

Antiquities Permit 3127

By
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Contract Report Number 122

2003

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BVRA Project Number 03-16

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ABSTRACT

An archaeological evaluation of five areas to be affected by water line construction in Cass County, Texas performed by Brazos Valley Research Associates in May 2003. This project was conducted under Texas Antiquities Permit 3127. William E. Moore was the Principal Investigator, and Edward P. Baxter was the Project Archaeologist. Shovel testing of the five areas did not locate any archaeological sites. It is recommended that the Western Cass Water Supply Corporation be allowed to proceed with construction as planned. Copies of the report are on file at the Texas Historical Commission, Archeology Division; Texas Archeological Research Laboratory, Brazos Valley Research Associates, and Western Cass Water Supply Corporation.

ACKNOWLEDGMENTS

Brazos Valley Research Associates is appreciative of those individuals who participated in this project. Hollie H. Nowlin at J. F. Fontaine & Associates, Inc. provided maps and logistical support. Malcolm Murray, President and General Manager of Western Cass Water Supply Corporation in Linden, Texas accompanied the Project Archaeologist to the areas to be investigated. Edward P. Baxter conducted the field survey. Debra L. Beene at the Texas Historical Commission, Archeology Division, served as the reviewer for this project, and her input was valuable to the successful outcome of this investigation. Allegra Azulay, Records File Search Assistant at the Texas Archeological Research Laboratory (TARL), conducted the background search for previously recorded sites in the project area and vicinity. The figures appearing in this report were prepared by Lili Lyddon of L.L. Technical Services in North Zulch, Texas.

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INTRODUCTION

Brazos Valley Research Associates was retained by Western Cass Water Supply Corporation (WSC) through J. F. Fontaine & Associates, Inc. of Palestine, Texas to conduct a cultural resources survey of five areas that will be affected by water line construction in rural south-central Cass County (Figure 1). The project area is depicted on two 7.5' United States Geological Survey topographic maps. They are Carterville (Figure 2) and Linden (Figure 3). The map numbers are 33094-A4 for Carterville and 33094-A3 for Linden.

Western Cass WSC proposes to make improvements to an existing water line in various locations throughout the county. A review of the proposed improvements by the Texas Historical Commission, Archeology Division, resulted in the selection of five areas considered to be potential settings for significant archaeological sites (Table 1). These five areas are the focus of this investigation. The proposed improvements consists of open cut trenches in three areas and boring in two areas.

Overall, Cass County is located in Northeast Texas in the Eastern Planning Region, an area known to contain significant archaeological sites (Kenmotsu and Perttula 1993). Because of this archaeological potential, a cultural resource study by professional archaeologists was warranted according to Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas. The field survey was conducted on May 15, 2003.

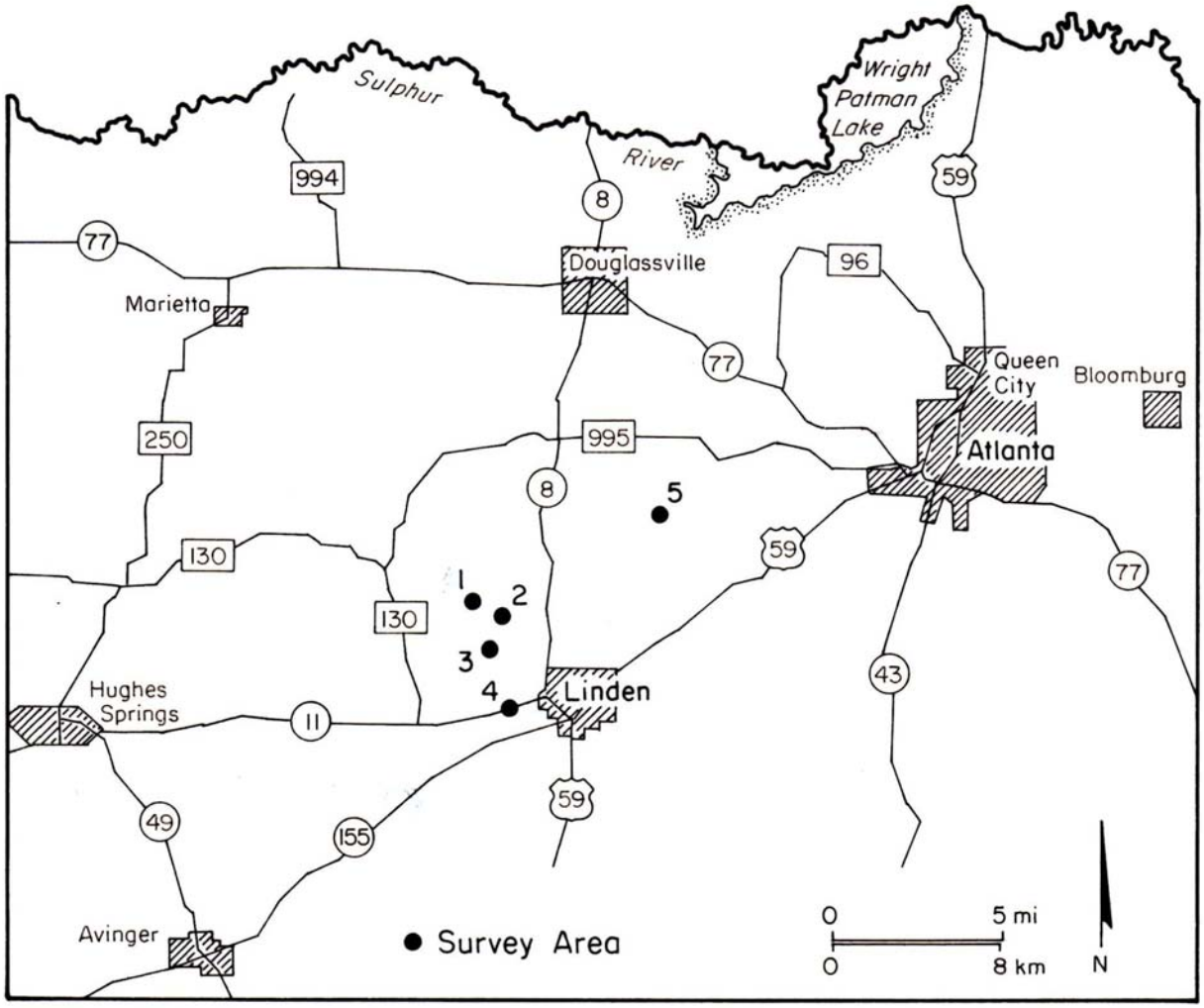


Figure 1. Project Area

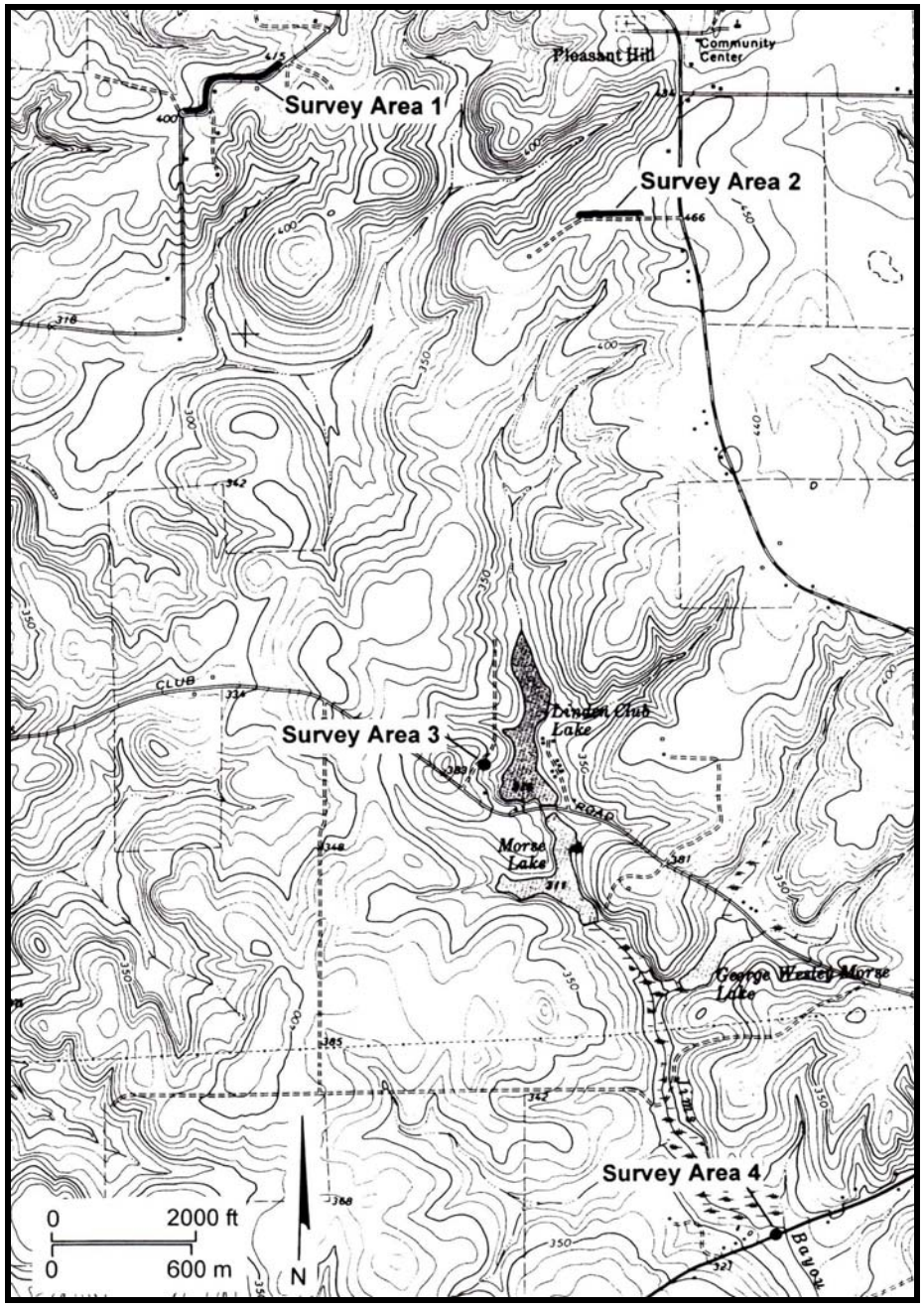


Figure 2. Project Area on Topographic Map Carterville

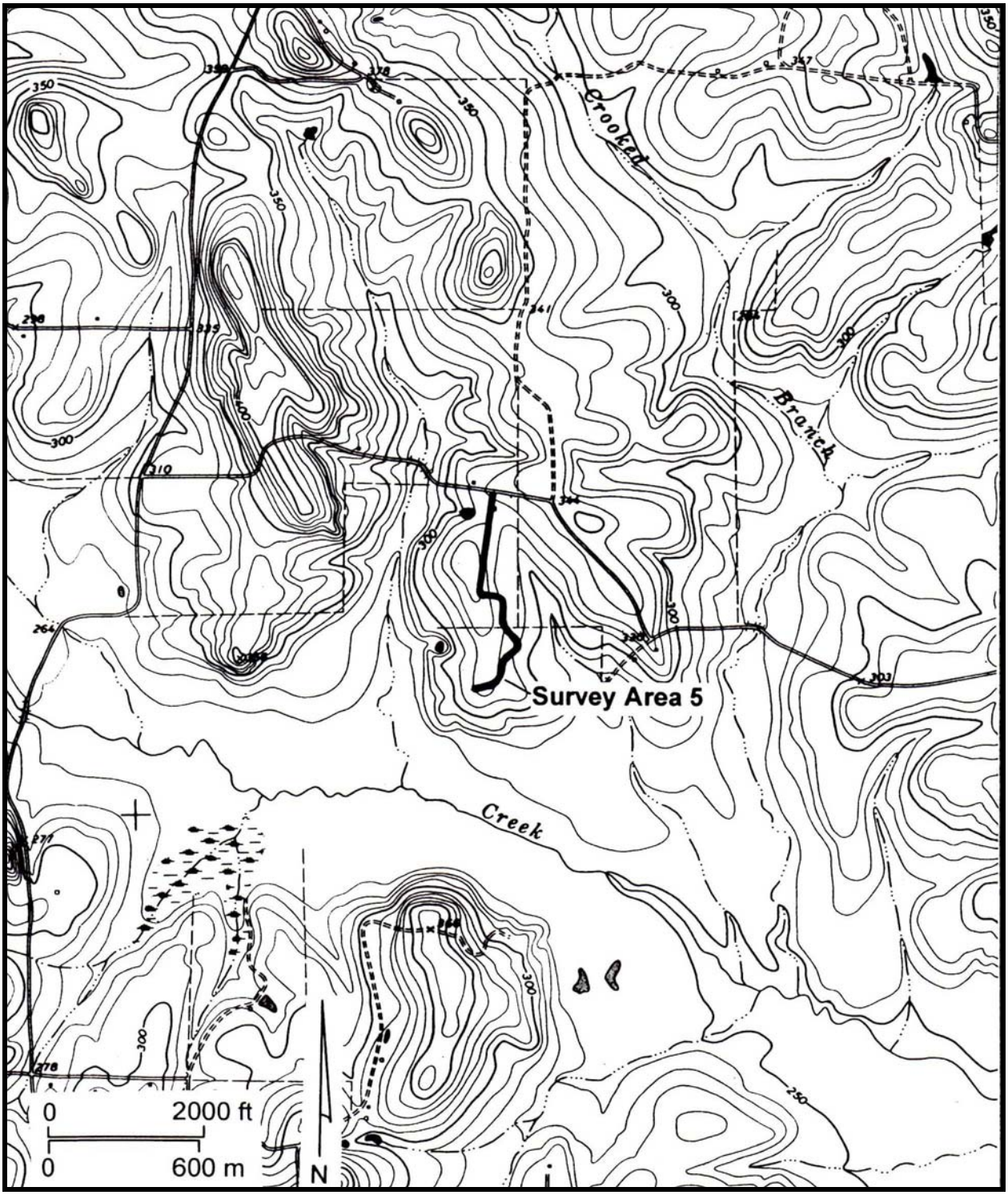


Figure 3. Project Area on Topographic Map Linden

Table 1. Areas Recommended for Survey

Area	Description	Topographic Map
1	2" pipe in open cut trench in ROW of CR 1346 (30 feet)	Carterville
2	2" pipe in open cut trench in ROW of CR 1340 (30 feet)	Carterville
3	1" pipe encased in 30 feet of 2" pipe on Club Lake Road West	Carterville
4	1" pipe encased in 60 feet of 2" pipe on SH 11	Carterville
5	2" pipe in open cut trench in ROW of a private road	Linden

ARCHAEOLOGICAL BACKGROUND

Cass County is located in Northeast Texas within the Eastern Planning Region as defined by Kenmotsu and Perttula (1993). The following comments are taken from their comprehensive document for this area, and the interested reader is referred to this volume for more detailed information. Although significant archaeological sites have been recorded in the county, the total number of sites (n=258) is not high. As of 1993, for example, Cass County had less than .037 recorded sites per kilometer, ranking it last in this area. The county is described as rural with less than 14.9 people per square kilometer and a population growth of less than 5%. Environmentally, it is situated within the Piney Woods, Mixed Pine-Hardwood Forest area of East Texas. Artificial disturbance in the county consists mainly of lignite mines from the near surface Wilcox formation and the deep basin Jackson-Yegua formation and lakes Wright Patman and Texarkana. In 1991, the county had a total of 137 recorded archaeological sites, of which 13 were regarded as significant. No sites were listed in the National Register of Historic Places. The archaeological chronology for the area includes sites dating from Paleoindian times (9500 B.C. - 7000 B.C.) through Historic Caddoan (A.D. 1680 - A.D. 1860).

METHODS

Prior to entering the field a records check for previously recorded sites in the project area and vicinity was conducted by Allegra Azulay, Records File Search Assistant at TARL. The five areas were visited by the Project Archaeologist who shovel tested for the presence of subsurface cultural materials. The five areas were assigned numbers 1 through 5 to better facilitate record keeping. Malcolm Murray, President and General Manager of Western Cass WSC were present during the field survey to ensure that all work was conducted within the areas planned for construction. In addition to shovel testing, road cutbanks and other areas of exposed soil were examined for cultural materials. In some cases the profile of the landform revealing the sandy soil above the clay was clearly visible. Road cutbanks were sometimes profiled to expose the clay. In Area 3, for example, only one shovel test was dug. On one side of the road, the pipe will be dug three feet into an area already disturbed due to road construction through the hill. All earth excavated through shovel testing was screened using 1/4" hardware cloth. In all, 26 shovel tests were dug. Specific data for each test appear in tabular form in Appendix I, and the approximate location of the tests in the five areas is depicted on the topographic maps in Appendix II. In addition to notes taken in the field, the five areas were photographed with a digital camera.

RESULTS AND CONCLUSIONS

No previously unrecorded prehistoric sites within the project area were identified as a result of this study. The depth of the soils in the five areas varied from 10 to 100 cm below the existing ground surface with the majority of the tests (n=22) encountering clay at 50 cm or less. Results of shovel testing by area are presented below.

Area 1

A two inch pvc carrier pipe will be placed in an open cut trench in the right-of-way of County Road 1340 for a distance of 30 feet. This location is on a sandy hill overlooking the upper reaches of an unnamed tributary to the north. The area was investigated through shovel testing with three tests excavated. No cultural materials were encountered.

Area 2

A one inch pvc carrier pipe encased in 60 feet of two inch pipe will pass beneath State Highway 11 in the floodplain where it crosses Jims Bayou. This will connect the existing pipe to a meter on the opposite side of the road. The area was investigated through shovel testing with eight test excavated. No cultural materials were encountered.

Area 3

A one inch pvc carrier pipe encased in 30 feet of two inch pipe will pass beneath Club Lake Road West on a sandy hill overlooking Linden Club Lake (Jims Bayou) to the east. This will connect the existing pipe to a water meter on the opposite side of the road. The area was investigated through shovel testing with one test excavated. No cultural materials were encountered.

Area 4

A two inch pvc carrier pipe will be placed in an open cut trench in the right-of-way of County Road 1346 for a distance of 30 feet. This location is on a sandy hill overlooking the upper reaches of unnamed tributaries to the north and south. The area was investigated through shovel testing with three tests excavated. No cultural materials were encountered.

Area 5

A two inch pvc carrier pipe will be placed in an open cut trench in the right-of-way of a private road. The southern end of this line is on a sandy hill overlooking Frazier Creek to the south. The area was investigated through shovel testing with eleven tests excavated. No cultural materials were encountered.

RECOMMENDATIONS

It is recommended that Western Cass WSC be allowed to proceed with construction as planned. It is always possible that areas containing cultural resources are missed during any archaeological survey. Should any evidence of an archaeological site not discussed in this report be encountered during construction of the proposed water line, work in the area where the find has been made should be temporarily suspended until the situation can be evaluated by a professional archaeologist in consultation with the Texas Historical Commission, Brazos Valley Research Associates, and Western Cass WSC.

REFERENCES CITED

Kenmotsu, Nancy Adele, and Timothy K. Perttula
1993 *Archeology in the Eastern Planning Region, Texas: A Planning Document.* Department of Antiquities Protection, Cultural Resource Management Report 3. Texas Historical Commission. Austin.

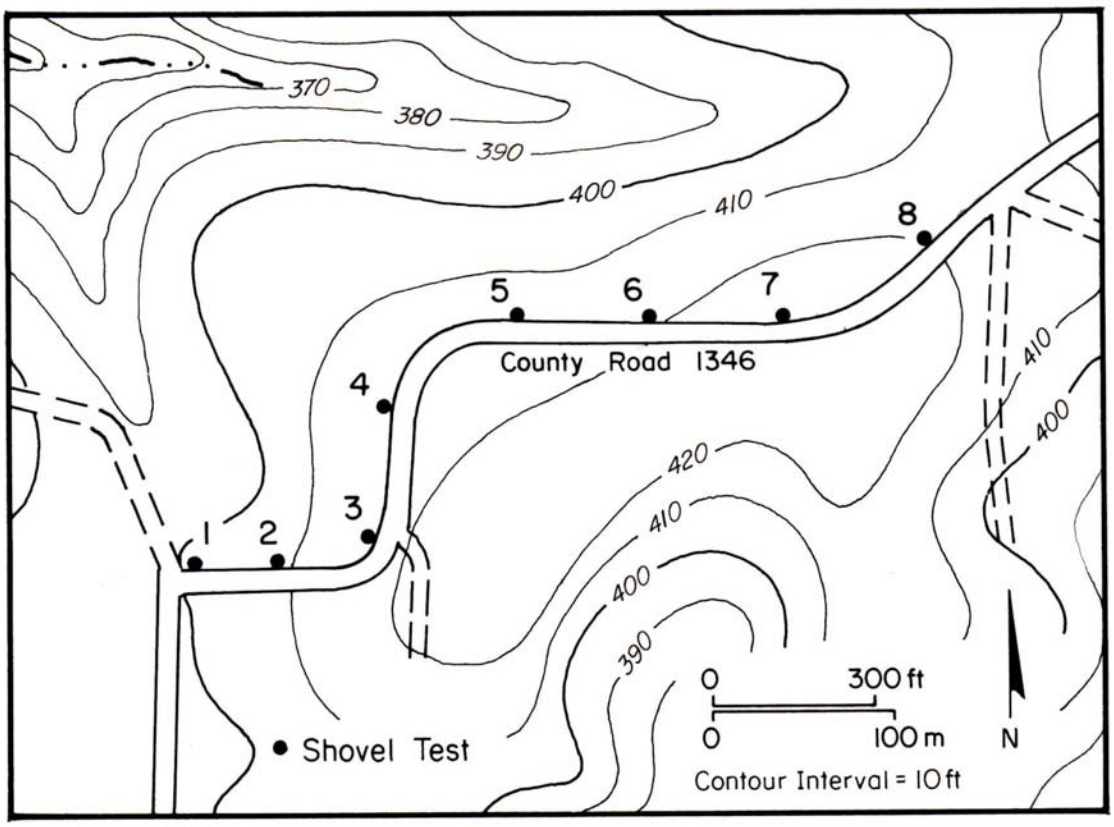
Appendix I: Shovel Test Log

Test	Depth	Description
		Area 1
1	60 cm	in abandoned county road ROW; sandy clay over clay
2	40 cm	in abandoned county road ROW; sandy clay over clay
3	40 cm	in abandoned county road ROW; sandy clay over clay
		Area 2
1	30 cm	meter and bore hole location on south side of road in ditch; sandy clay over clay; disturbed
2	20 cm	bore hole location on south side of road in ditch; sandy clay over clay; disturbed
3	30 cm	bore hole location on north side of road in ditch; sandy clay over clay; disturbed
		Area 3
1	100 cm	meter and bore hole location; sandy clay over clay; other side disturbed to three feet
		Area 4
1	50 cm	north side of road in ditch; sandy clay over clay
2	30 cm	north side of road in ditch; sandy clay over clay
3	10 cm	north side of road in ditch; sandy clay over clay
4	20 cm	north side of road in ditch; sandy clay over clay
5	30 cm	north side of road in ditch; sandy clay over clay
6	20 cm	north side of road in ditch; sandy clay over clay
7	50 cm	north side of road in ditch; sandy clay over clay
8	10 cm	north side of road in ditch; clay
		Area 5
1	60 cm	west side of private road in mowed lawn; sandy clay over sand
2	70 cm	west side of private road in mowed lawn; sand over clay
3	40 cm	west side of private road in mowed lawn; sand over clay
4	30 cm	west side of private road in mowed lawn; sand over clay
5	20 cm	west side of private road in mowed lawn; sand over clay
6	10 cm	west side of private road in mowed lawn; sand over clay

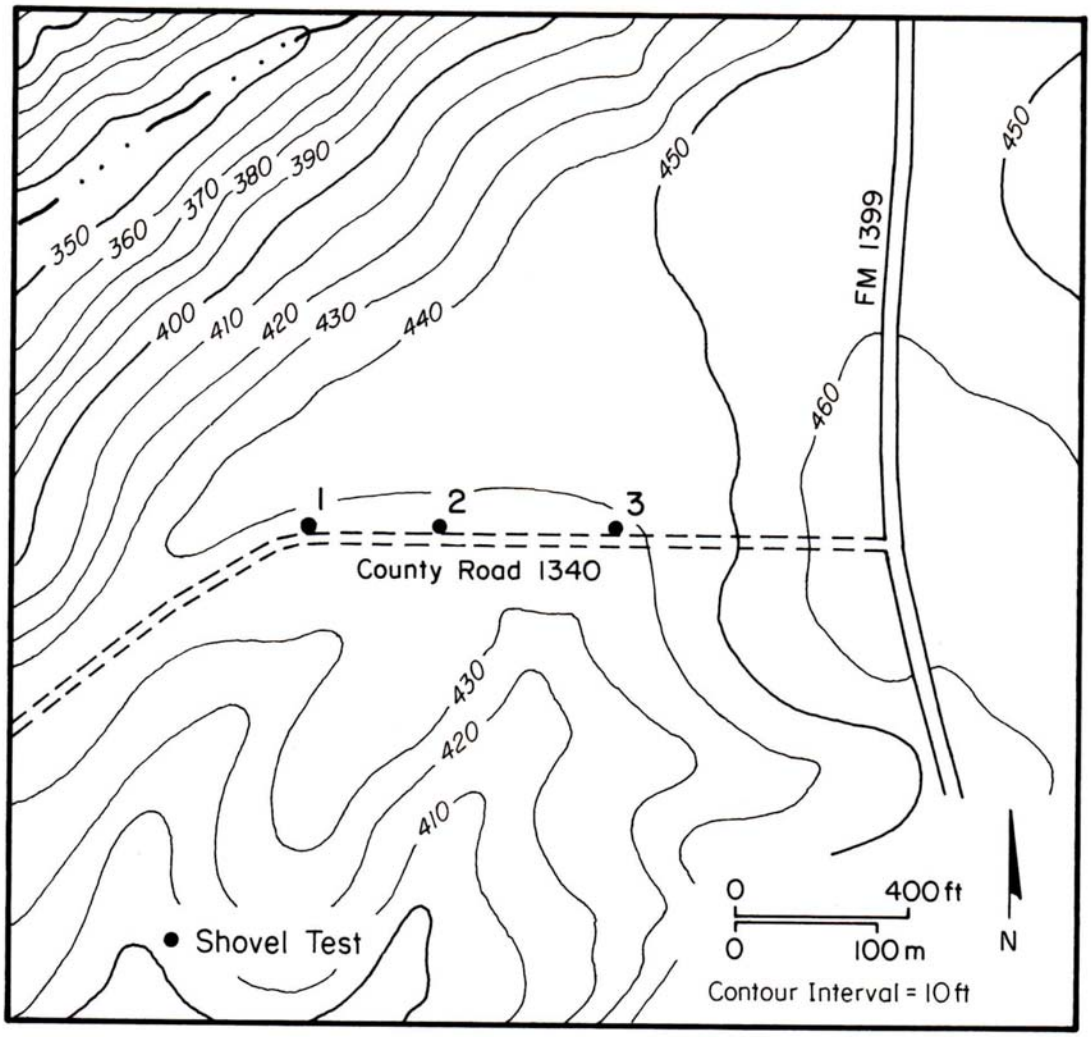
Test	Depth	Description
7	40 cm	west side of private road in mowed lawn; sand over clay
8	30 cm	west side of private road in mowed lawn; sand over clay
9	10 cm	west side of private road in mowed lawn; clay
10	30 cm	west side of private road in mowed lawn; sand over clay
11	15 cm	west side of private road in mowed lawn; sand over clay

APPENDIX II

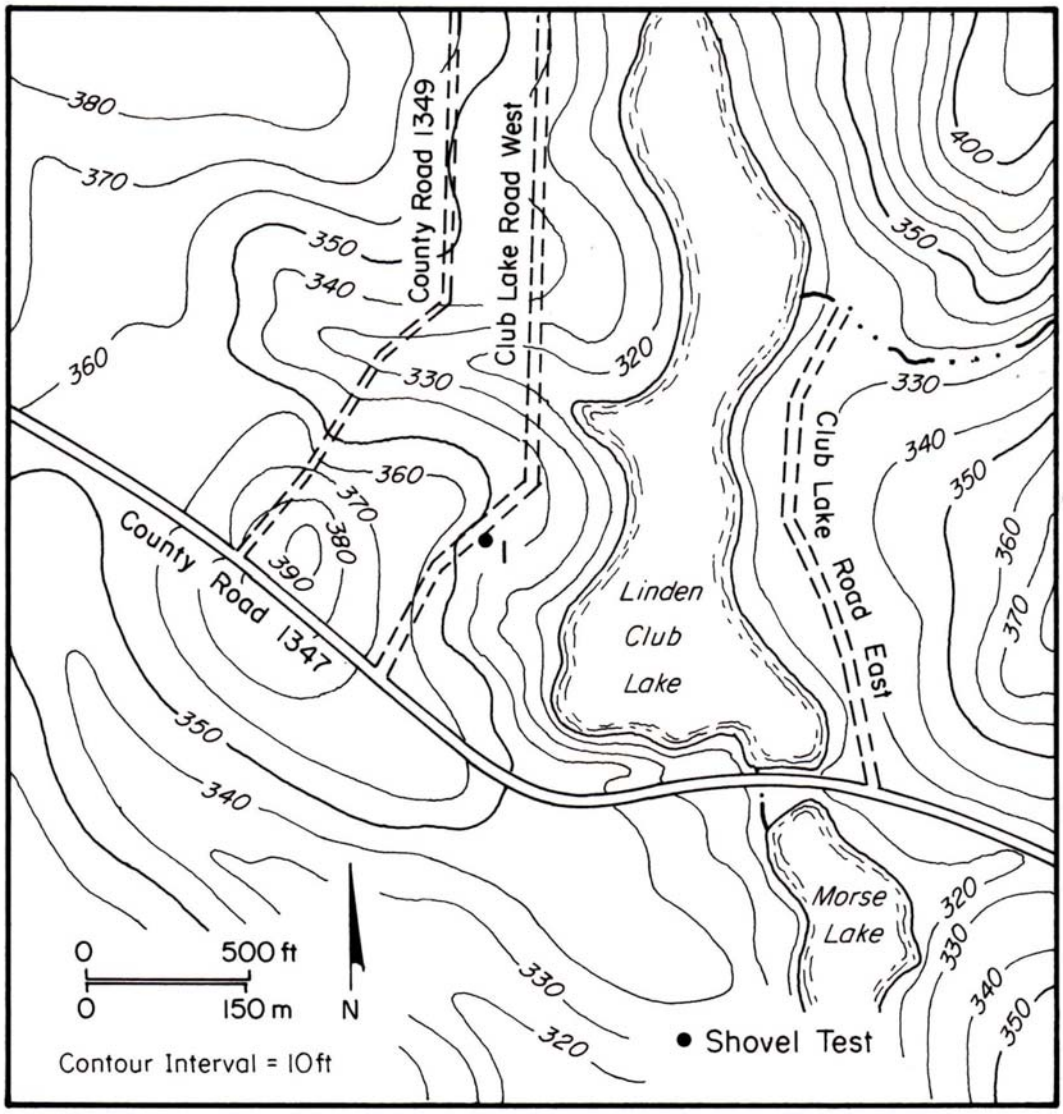
SHOVEL TESTS ON TOPOGRAPHIC MAPS


370
380
390
400
410
420
8
5
6
7
County Road 1346
4
3
2
1
Shovel Test
0
300 ft
0
100 m
N
Contour Interval = 10 ft

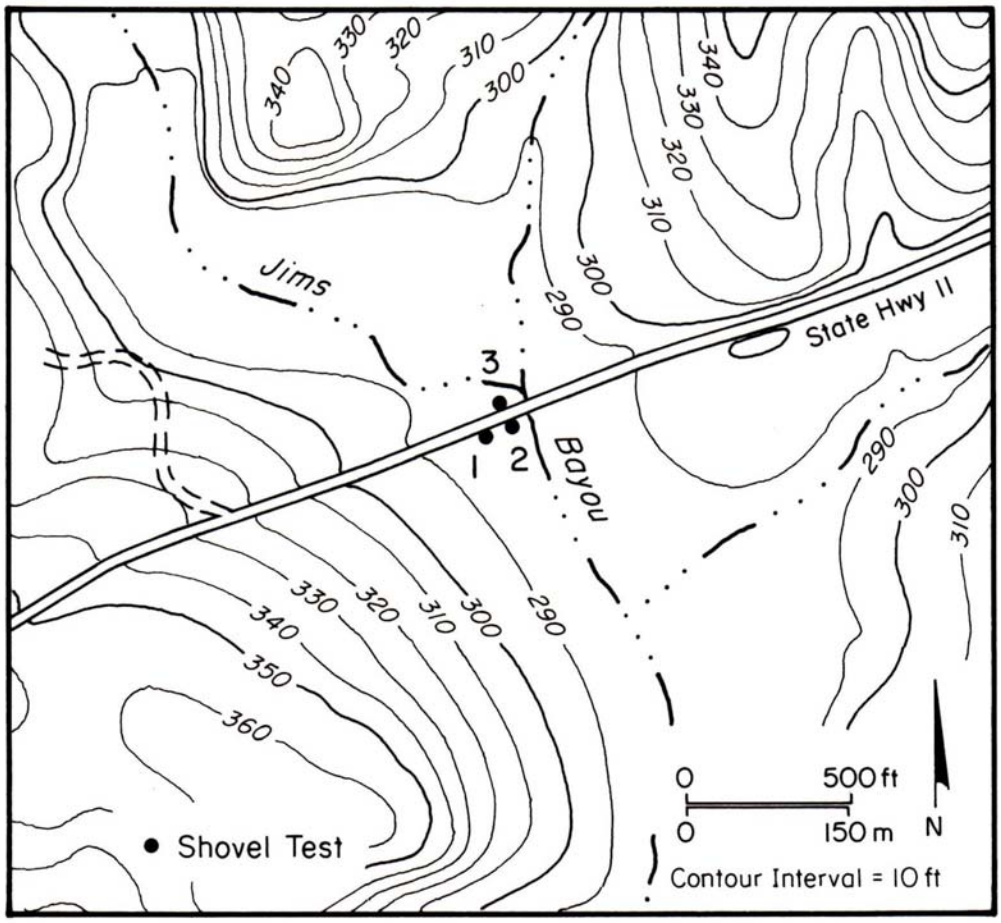
Area 1


350
360
370
380
390
400
410
420
430
440
450
450
460
450
FM 1399
1
2
3
County Road 1340
430
420
410
Shovel Test
0
400 ft
0
100 m
N
Contour Interval = 10 ft

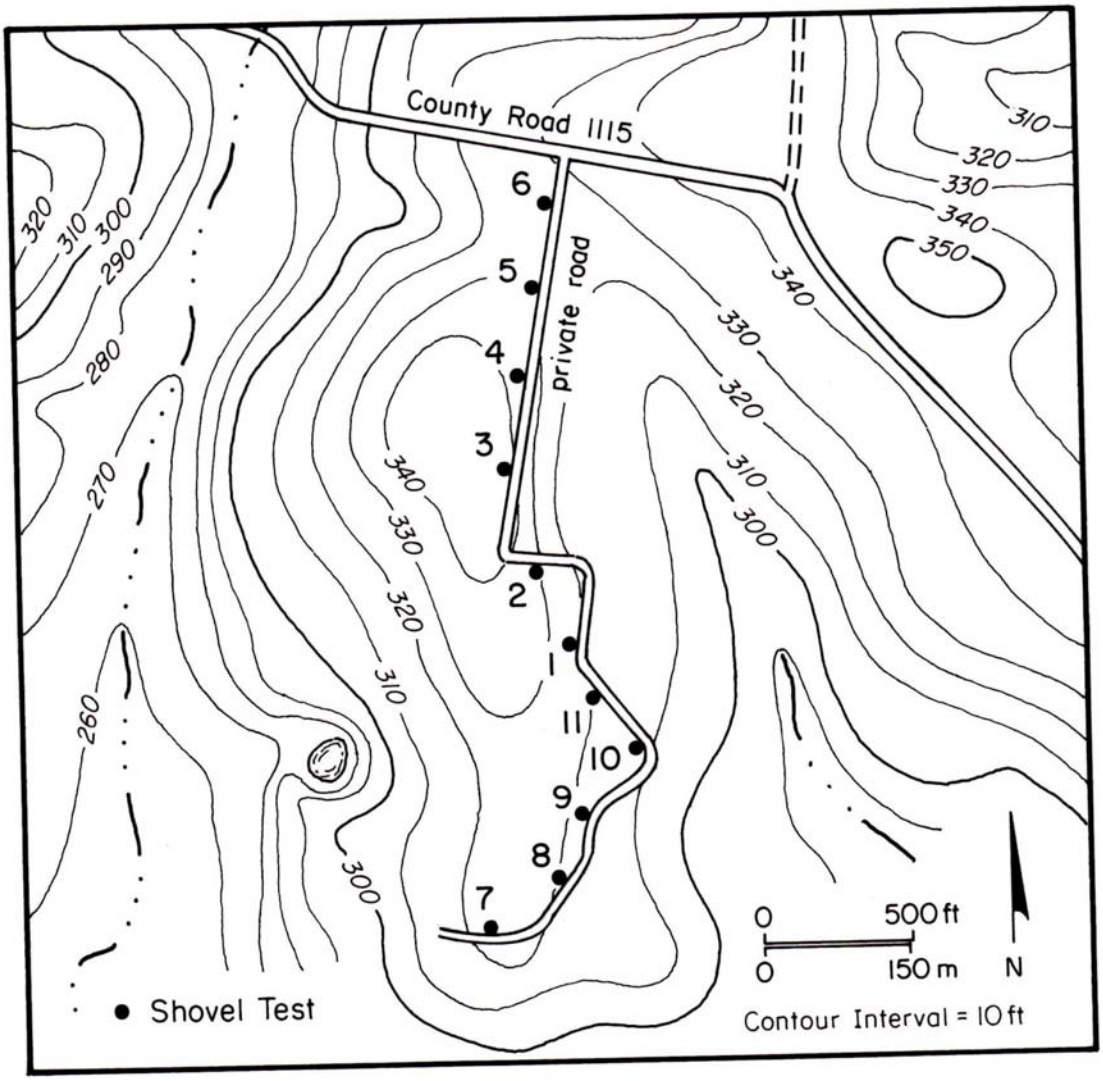
Area 2


County Road 1349
Club Lake Road West
Club Lake Road East
County Road 1347
Linden
Club
Lake
Morse
Lake
380
370
360
350
340
330
320
400
390
0
500 ft
0
150 m
N
Contour Interval = 10ft
Shovel Test

Area 3


Jims
Bayou
State Hwy 11
1
2
3
Shovel Test
0 500 ft
0 150 m
N
Contour Interval = 10 ft

Area 4


County Road 1115
private road
6
5
4
3
2
1
11
10
9
8
7
320
310
300
290
280
270
260
340
330
350
0 500 ft
0 150 m
N
Shovel Test
Contour Interval = 10 ft

Area 5